WHAT IS CLAIMED IS:

1. An organic EL display device which displays by individually controlling an amount of current of organic EL elements, which are arranged in a matrix, according to an input image signal, comprising:

a lookup table for storing gamma compensation data for compensating an image signal;

storage means for storing an equation for performing gamma compensation of the input image signal; and

table data generation means for generating table lookup data and storing such data in the lookup table on the basis of the equation stored in the storage means, and wherein the table data generated by the table data generation means is stored in the lookup table by an initialization operation to perform gamma compensation of the input image signal.

2. The organic EL display device according to claim 1, wherein the table data generation means comprises:

a nonvolatile memory for storing a coefficient of the equation; and

processing means for generating the equation by using a coefficient stored in the nonvolatile memory.

3. The organic EL display device according to claim 1 wherein the equation stored in the table data storage means is obtained by making the organic EL panel emit light in an amount according to input image signal levels of a plurality of stages, detecting the amount of emitted light to determine a relationship between the input image signal level and the amount of emitted light, and calculating an approximate expression indicating the determined relationship or only a prescribed coefficient of the approximate expression according to the determined result.

4. The organic EL display device according to claim 1 wherein

the equation stored in the table data storage means is obtained by supplying input image signals of plural stages to make the organic EL elements emit light so to measure a drive current passing to the elements; determining, from the measured current value, a relationship between the input image signal level and the amount of emitted light of the organic EL elements according to a luminous efficiency of the organic EL elements; calculating, according to the determined relationship, an approximate expression indicating the relationship between the input image signal and the amount of emitted light of the organic EL elements or a coefficient of the prescribed approximate expression; and determining from the obtained approximate expression or coefficient.

5. The organic EL display device according to claim 1 further comprising total current detection means for detecting total current flowing to all the organic EL elements arranged in a matrix, wherein:

an offset voltage which offsets the input image signal is determined according to the total current detected by the total current detection means so as to provide a voltage to make a current start passing to the organic EL elements according to a black level of the input image signal.